



TOWN OF STOW

No. 2005-32

Stow, March 16 2005

BUILDING PERMIT

This certifies that Assabet Water Co.

has permission to 19x30 Water treatment Facility

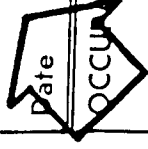
on 38 Adams Drive Lot No.

provided that the person accepting this permit shall in every respect conform to the terms of the application therefor on file in this office; to the provisions of the Laws of the Commonwealth and to the By-Laws of the Town of Stow relating to the Location, Inspection, Erection, Enlarging, Altering, Raising, Moving, Repairing or Tearing down of a building or structure.

WIRING INSPECTOR		GAS INSPECTOR		PLUMBING INSPECTOR		BOARD OF HEALTH		BUILDING INSPECTOR	
Stamp Here		Stamp Here		Stamp Here		Stamp Here		Stamp Here	
Rough		Rough		Rough		Rough		Foundation	
Date		Date		Date		Date		Date	
Service		Final		Final		Final		Fire Stopping	
Date		Date		Date		Date		Date	
Final									

THIS CARD MUST BE DISPLAYED IN A CONSPICUOUS PLACE ON THE PREMISES, MAINTAINED IN GOOD CONDITION AND MUST NOT BE REMOVED UNTIL ALL WORK IN THE BUILDING HAS BEEN APPROVED. Spaces above must be stamped and dated at the time of approval of the Plumbing, Gas Inspector, Wiring Inspector and by the Building Inspector before any work is covered up or any lathing done. Each of these inspectors must be notified in writing. This permit expires in 2 years. This card will be collected by the Building Inspector at the time of his final inspection.

Building approved for lathing



NO WALL OR CEILING SHALL BE LATHED OR OTHERWISE COVERED UNTIL THIS CARD BEARS STAMP OF INSPECTOR IN SPACE DESIGNATED FOR THIS PURPOSE

PREMISES NOT TO BE OCCUPIED UNTIL AN OCCUPANCY PERMIT IS ISSUED BY THE BUILDING INSPECTOR.

[Signature] Inspector of Buildings



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

DEP File Number:

299-428



2005 00051602

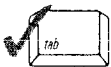
Bk: 44810 Pg: 199 Doc: ORD

Page: 1 of 11 03/16/2005 09:43 AM

A. General Information

Important:

When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



From: Stow Conservation Commission
1. Conservation Commission

2. This issuance is for (check one): ☒ Order of Conditions ☐ Amended Order of Conditions

3. To: Applicant:

Stephen Donovan Assabet Water Company
a. First Name b. Last Name c. Company
70 Foster Street
d. Mailing Address
Southbridge MA 01550
e. City/Town f. State g. Zip Code

4. Property Owner (if different from applicant):

a. First Name b. Last Name c. Company

d. Mailing Address

e. City/Town f. State g. Zip Code

5. Project Location:

38 Adams Drive Stow
a. Street Address b. City/Town
R-7 4
c. Assessors Map/Plat Number d. Parcel/Lot Number
Latitude and Longitude, if known (note:
electronic filers will click for GIS locator):
e. Latitude f. Longitude

6. Property recorded at the Registry of Deeds for (attach additional information if more than one parcel):

Middlesex
a. County b. Certificate (if registered land)
12634 423
c. Book d. Page

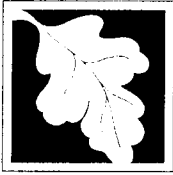
7. Dates: 01/05/05 02/15/05 03/01/05
a. Date Notice of Intent Filed b. Date Public Hearing Closed c. Date of Issuance

8. Final Approved Plans and Other Documents (attach additional plan or document references as needed):

Plan of Land in Stow, Massachusetts
a. Plan Title
Stamski and McNary, Inc. William F. McNary
b. Prepared By c. Signed and Stamped by
February 9, 2005 1" = 50'
d. Final Revision Date e. Scale

f. Additional Plan or Document Title g. Date

9. Total WPA Fee Paid: \$500.00 \$237.50 \$262.50
a. Total Fee Paid b. State Fee Paid c. City/Town Fee Paid



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

DEP File Number:

299-428

B. Findings

1. Findings pursuant to the Massachusetts Wetlands Protection Act:

Following the review of the above-referenced Notice of Intent and based on the information provided in this application and presented at the public hearing, this Commission finds that the areas in which work is proposed is significant to the following interests of the Wetlands Protection Act. Check all that apply:

- a. ☒ Public Water Supply b. ☐ Land Containing Shellfish c. ☒ Prevention of Pollution
d. ☒ Private Water Supply e. ☐ Fisheries f. ☒ Protection of Wildlife Habitat
g. ☒ Groundwater Supply h. ☒ Storm Damage Prevention i. ☒ Flood Control

2. This Commission hereby finds the project, as proposed, is: (check one of the following boxes)

Approved subject to:

- ☒ the following conditions which are necessary in accordance with the performance standards set forth in the wetlands regulations. This Commission orders that all work shall be performed in accordance with the Notice of Intent referenced above, the following General Conditions, and any other special conditions attached to this Order. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, these conditions shall control.

Denied because:

- ☐ the proposed work cannot be conditioned to meet the performance standards set forth in the wetland regulations. Therefore, work on this project may not go forward unless and until a new Notice of Intent is submitted which provides measures which are adequate to protect these interests, and a final Order of Conditions is issued. **A description of the performance standards which the proposed work cannot meet is attached to this Order.**

- ☐ the information submitted by the applicant is not sufficient to describe the site, the work, or the effect of the work on the interests identified in the Wetlands Protection Act. Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides sufficient information and includes measures which are adequate to protect the Act's interests, and a final Order of Conditions is issued. **A description of the specific information which is lacking and why it is necessary is attached to this Order as per 310 CMR 10.05(6)(c).**

Inland Resource Area Impacts: Check all that apply below. (For Approvals Only)

Resource Area	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
3. <input type="checkbox"/> Bank	a. linear feet	b. linear feet	c. linear feet	d. linear feet
4. <input type="checkbox"/> Bordering Vegetated Wetland	a. square feet	b. square feet	c. square feet	d. square feet
5. <input type="checkbox"/> Land Under Waterbodies and Waterways	a. square feet e. cu.yd dredged	b. square feet f. cu.yd dredged	c. square feet	d. square feet



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

DEP File Number:

299-428

B. Findings (cont.)

Resource Area	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
6. <input type="checkbox"/> Bordering Land Subject to Flooding	a. square feet	b. square feet	c. square feet	d. square feet
Cubic Feet Flood Storage	e. cubic feet	f. cubic feet	g. cubic feet	h. cubic feet
7. <input type="checkbox"/> Isolated Land Subject to Flooding	a. square feet	b. square feet		
Cubic Feet Flood Storage	c. cubic feet	d. cubic feet	e. cubic feet	f. cubic feet
8. <input checked="" type="checkbox"/> Riverfront area	615,000			
	a. total sq. feet	b. total sq. feet		
Sq ft within 100 ft	c. square feet	d. square feet		
Sq ft between 100-200 ft	5200	1500		
	e. square feet	f. square feet		

Coastal Resource Area Impacts: Check all that apply below. (For Approvals Only)

9. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below			
10. <input type="checkbox"/> Land Under the Ocean	a. square feet	b. square feet		
	c. cu.yd dredged	d. cu.yd dredged		
11. <input type="checkbox"/> Barrier Beaches	Indicate size under Coastal Beaches and/or Coastal Dunes below			
12. <input type="checkbox"/> Coastal Beaches	a. square feet	b. square feet	c. c/y nourishmt.	d. c/y nourishmt.
13. <input type="checkbox"/> Coastal Dunes	a. square feet	b. square feet	c. c/y nourishmt.	d. c/y nourishmt.
14. <input type="checkbox"/> Coastal Banks	a. linear feet	b. linear feet		
15. <input type="checkbox"/> Rocky Intertidal Shores	a. square feet	b. square feet		
16. <input type="checkbox"/> Salt Marshes	a. square feet	b. square feet	c. square feet	d. square feet
17. <input type="checkbox"/> Land Under Salt Ponds	a. square feet	b. square feet		
	c. cu.yd dredged	d. cu.yd dredged		
18. <input type="checkbox"/> Land Containing Shellfish	a. square feet	b. square feet	c. square feet	d. square feet
19. <input type="checkbox"/> Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above			
	a. cu.yd dredged	b. cu.yd dredged		
20. <input type="checkbox"/> Land Subject to Coastal Storm Flowage	a. square feet	b. square feet		



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

DEP File Number:

299-428

C. General Conditions Under Massachusetts Wetlands Protection Act

(only applicable to approved projects)

1. Failure to comply with all conditions stated herein, and with all related statutes and other regulatory measures, shall be deemed cause to revoke or modify this Order.
2. The Order does not grant any property rights or any exclusive privileges; it does not authorize any injury to private property or invasion of private rights.
3. This Order does not relieve the permittee or any other person of the necessity of complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.
4. The work authorized hereunder shall be completed within three years from the date of this Order unless either of the following apply:
 - a. the work is a maintenance dredging project as provided for in the Act; or
 - b. the time for completion has been extended to a specified date more than three years, but less than five years, from the date of issuance. If this Order is intended to be valid for more than three years, the extension date and the special circumstances warranting the extended time period are set forth as a special condition in this Order.
5. This Order may be extended by the issuing authority for one or more periods of up to three years each upon application to the issuing authority at least 30 days prior to the expiration date of the Order.
6. Any fill used in connection with this project shall be clean fill. Any fill shall contain no trash, refuse, rubbish, or debris, including but not limited to lumber, bricks, plaster, wire, lath, paper, cardboard, pipe, tires, ashes, refrigerators, motor vehicles, or parts of any of the foregoing.
7. This Order is not final until all administrative appeal periods from this Order have elapsed, or if such an appeal has been taken, until all proceedings before the Department have been completed.
8. No work shall be undertaken until the Order has become final and then has been recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land upon which the proposed work is to be done. In the case of the registered land, the Final Order shall also be noted on the Land Court Certificate of Title of the owner of the land upon which the proposed work is done. The recording information shall be submitted to this Conservation Commission on the form at the end of this Order, which form must be stamped by the Registry of Deeds, prior to the commencement of work.
9. A sign shall be displayed at the site not less than two square feet or more than three square feet in size bearing the words,

"Massachusetts Department of Environmental Protection" [or, "MA DEP"]

"File Number 299-428"



WPA Form 5 – Order of Conditions

299-428

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

C. General Conditions Under Massachusetts Wetlands Protection Act

10. Where the Department of Environmental Protection is requested to issue a Superseding Order, the Conservation Commission shall be a party to all agency proceedings and hearings before DEP.
11. Upon completion of the work described herein, the applicant shall submit a Request for Certificate of Compliance (WPA Form 8A) to the Conservation Commission.
12. The work shall conform to the plans and special conditions referenced in this order.
13. Any change to the plans identified in Condition #12 above shall require the applicant to inquire of the Conservation Commission in writing whether the change is significant enough to require the filing of a new Notice of Intent.
14. The Agent or members of the Conservation Commission and the Department of Environmental Protection shall have the right to enter and inspect the area subject to this Order at reasonable hours to evaluate compliance with the conditions stated in this Order, and may require the submittal of any data deemed necessary by the Conservation Commission or Department for that evaluation.
15. This Order of Conditions shall apply to any successor in interest or successor in control of the property subject to this Order and to any contractor or other person performing work conditioned by this Order.
16. Prior to the start of work, and if the project involves work adjacent to a Bordering Vegetated Wetland, the boundary of the wetland in the vicinity of the proposed work area shall be marked by wooden stakes or flagging. Once in place, the wetland boundary markers shall be maintained until a Certificate of Compliance has been issued by the Conservation Commission.
17. All sedimentation barriers shall be maintained in good repair until all disturbed areas have been fully stabilized with vegetation or other means. At no time shall sediments be deposited in a wetland or water body. During construction, the applicant or his/her designee shall inspect the erosion controls on a daily basis and shall remove accumulated sediments as needed. The applicant shall immediately control any erosion problems that occur at the site and shall also immediately notify the Conservation Commission, which reserves the right to require additional erosion and/or damage prevention controls it may deem necessary. Sedimentation barriers shall serve as the limit of work unless another limit of work line has been approved by this Order.

Special Conditions:

See Attached

If you need more
space for
additional
conditions,
select box to
attach a text
document ☐



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

DEP File Number:

299-428

D. Findings Under Municipal Wetlands Bylaw or Ordinance

1. Furthermore, the _____ hereby finds (check one that applies):
Conservation Commission

2. ☐ that the proposed work cannot be conditioned to meet the standards set forth in a municipal ordinance or bylaw specifically:

a. Municipal Ordinance or Bylaw

b. Citation

Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides measures which are adequate to meet these standards, and a final Order of Conditions is issued.

3. ☐ that the following additional conditions are necessary to comply with a municipal ordinance or bylaw:

a. Municipal Ordinance or Bylaw

b. Citation

The Commission orders that all work shall be performed in accordance with the following conditions and with the Notice of Intent referenced above. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, the conditions shall control.

c. The special conditions relating to municipal ordinance or bylaw are as follows:

If you need more space for additional conditions, select box to attach a text document ☐

E. Issuance

This Order is valid for three years, unless otherwise specified as a special condition pursuant to General Conditions #4, from the date of issuance.

March 1, 2005

1. Date of issuance

Please indicate the number of members who will sign this form:

This Order must be signed by a majority of the Conservation Commission.

2. Number of Signers

The Order must be mailed by certified mail (return receipt requested) or hand delivered to the applicant. A copy also must be mailed or hand delivered at the same time to the appropriate Department of Environmental Protection Regional Office, if not filing electronically (see Appendix A), and the property owner, if different from applicant.

Signatures

[Signature]
Douglas E. Moffat
Rebecca J. Matheson
Kathleen Spivey

[Signature]
Superintendent William Clark



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

DEP File Number:

299-428

E. Issuance (cont.)

Notary Acknowledgement

Commonwealth of Massachusetts County of Middlesex

On this 1st of March 2005
Day Month Year

Before me, the undersigned Notary Public, personally appeared

Stephen O'Riorden, Douglas Moffat, Stephen Jablon, Kathleen Sferra, Rebecca Mattison, Ingeborg Hegemann Clark,

proved to me through satisfactory evidence of identification, which was/were

Personal Knowledge

Description of evidence of identification

to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he/she signed it voluntarily for its stated purpose.

As member of

Stow
City/Town

Conservation Commission



PATRICIA R. PERRY
Notary Public
Commonwealth of Massachusetts
My Commission Expires
July 7, 2006

Patricia R. Perry
Signature of Notary Public
Patricia R. Perry
Printed Name of Notary Public

Place notary seal and/or any stamp above

July 7, 2006
My Commission Expires (Date)

This Order is issued to the applicant as follows:

☐ by hand delivery on

☒ by certified mail, return receipt requested, on

Date

March 2, 2005
Date

F. Appeals

The applicant, the owner, any person aggrieved by this Order, any owner of land abutting the land subject to this Order, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate DEP Regional Office to issue a Superseding Order of Conditions. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and a completed Appendix E: Request of Departmental Action Fee Transmittal Form, as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Order. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.

The request shall state clearly and concisely the objections to the Order which is being appealed and how the Order does not contribute to the protection of the interests identified in the Massachusetts Wetlands Protection Act, (M.G.L. c. 131, § 40) and is inconsistent with the wetlands regulations (310 CMR 10.00). To the extent that the Order is based on a municipal ordinance or bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.

ORDER OF CONDITIONS #299-428

**38 Adams Drive
Assabet Water Company
Map R-7 Parcel 4**

Plans Submitted With Notice of Intent:

- Plan titled "Plan of Land in Stow, Massachusetts dated December 28, 2004, Revised February 9, 2005 prepared by Stamski and McNary, Inc. and stamped by William F. McNary, Professional Land Surveyor.

Findings:

The applicants are proposing to construct a filtration facility near the two existing public water supply wells to meet current standards for drinking water supplied from Well No. 1 and remove iron and manganese from the water supplied from either well.

Representatives of the Conservation Commission conducted a site inspection of the site on January 15, 2005 and evaluated the extent of the proposed activities in relation to the wetland resource areas and the associated interests of the Wetlands Protection Act and the Stow Wetlands Protection Bylaw.

The wetland resource areas shown on the plans submitted with the Notice of Intent have not been confirmed by the Conservation Commission due to snow cover and any future activity or permit application will be subject to a review of the limits of wetland resource areas. The Commission informed the applicant of recommended changes to the Bordering Vegetated Wetland during the public hearing.

Work proposed within the 35 foot No-Disturb Zone established by the Wetlands Protection Bylaw Regulations. The Commission found that there are no alternatives to such activities. The proposed activities are necessary to support the operation of the public water supply.

Proposed activities will occur within the riverfront Area and within the Buffer Zone to Bordering Vegetated Wetland. The applicant has revised the plans during the public hearing process to reduce activities in the Riverfront Area, as shown on the plans.

The Commission has determined that the proposed activities meet the performance standards for activities within the Riverfront Area. A total of 1500 square feet of activity is proposed for construction of the southern lagoon.

The Commission has determined that the activities within the Buffer Zone to Bordering Vegetated Wetland are necessary for purposes of maintaining and upgrading current public water supply activities on the site and will not have a negative affect to the resource area.

The limit of work as shown on the plan, if complied with during all stages of construction and post construction stabilization is suitable to protect the interests of the Wetlands Protection Act and the Town of Stow Wetland Protection Bylaw.

Special Conditions:

1. A Stow Conservation Commissioner, agent of the Commission or the Department of Environmental Protection reserves the **right to enter and inspect the property at all reasonable times**, until a Certificate of Compliance is issued, to evaluate compliance with these conditions and to require submittal of any data deemed necessary by the Commission for that evaluation. Further, work shall be halted on the site if the

- Commissioner, agent or DEP determines that any of the work is not in compliance with this Order. Work shall not resume until the Commission is satisfied that the work will comply, and has so notified the applicant in writing.
2. The form provided at the end of this Order shall be completed and stamped at the Middlesex Registry of Deeds, after the expiration of the 10-day appeal period and if no request for appeal has been filed with the Department of Environmental Protection. This form shall be returned to the Commission in accordance with General Condition #8, and prior to the commencement of work.
 3. All work shall be performed as described in the Notice of Intent or as specified in this Order of Conditions. Any variation from these plans shall require prior approval from the Stow Conservation Commission. This may require resubmission or modification of the Notice of Intent.
 4. **The Stow Conservation Commission shall be notified of the commencement of construction a minimum of 72 hours prior to the start of construction.** The applicant shall advise the Commission of the name(s) and telephone numbers(s) of the person(s) responsible on site for compliance with this Order. The applicant shall also inform the Commission of any special safety requirements associated with site access at this time. A copy of this Order including plans shall be on the site upon commencement and during any site work for contractors to view and adhere to.
 5. No activities of any kind are permitted beyond the limits of work shown on the submitted plans is authorized.
 6. Erosion control devices shall be installed prior to the beginning of any phases of construction, and shall be maintained during construction. The erosion control specifications provided in the Notice of Intent and the erosion control provision in the Order will be the minimum standards for this project; the Commission may require additional measures. These will be maintained until the disturbed area is re-vegetated and stabilized to the satisfaction of the Stow Conservation Commission. The Stow Conservation Commission must be contacted prior to removal of erosion controls.
 7. The areas of construction shall remain in a stable condition at the close of each construction day. Erosion controls should be inspected at this time, and repaired, reinforced or replaced as necessary.
 8. No herbicides, pesticides or fertilizers shall be used anywhere on the site at any time.
 9. Subsequent to seeding, disturbed areas will be covered with hay mulch, erosion control blanket or netting or other suitable material in order to provide an adequate surface protection until seed germination. Preference should be given to erosion control netting with biodegradable stitching.
 10. If disturbed areas are not permanently stabilized by the end of the growing season, the contractor must monitor the area and repair or replace the erosion controls to protect the resource area.
 11. No debris, fill and excavated material shall be stockpiled within the 100-foot buffer except as necessary to complete construction in as efficient a manner as possible. Any stockpiles shall be controlled with proper and effective erosion controls. Side casting associated with the installation of the water line, if not removed immediately, shall be placed on the side of the trench away from the edge of Bordering Vegetated Wetland.

12. If dewatering activities are necessary, appropriate erosion and sedimentation controls are mandatory. The Commission shall be notified of the need to dewater within 12 hours of a determination that dewatering is necessary. The Commission shall inspect the site to evaluate the method of erosion and sedimentation controls.
13. There shall be no storage of construction related chemicals, oil, fuel, fertilizer, or other potentially hazardous materials within 100 feet of the wetlands. All chemicals or potentially hazardous materials associated with the operations and maintenance of public water treatment or distribution, if within the 100 foot buffer zone, shall be stored in an enclosed building and/or as specified in accordance with appropriate state and federal laws and regulations.
14. No maintenance or refueling of vehicles or construction equipment shall be performed within 100 feet of the wetlands except in emergency circumstances and only if reported to the Commission within 24 hours of such occurrence.
15. Upon completion of this project, the applicant shall submit the following to the Stow Conservation Commission to receive a Certificate of Compliance.
 - a. A letter from the applicant requesting a Certificate of Compliance.
 - b. A written statement from a registered professional engineer of the Commonwealth certifying that the work has been conducted as shown on the plan(s) and documents referenced above, and as conditioned by the Commission.
 - c. An "as-built" plan prepared and signed and stamped by a registered professional engineer or land surveyor of the Commonwealth, for the public record.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

DEP File Number:

299-428

G. Recording Information

This Order of Conditions must be recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land subject to the Order. In the case of registered land, this Order shall also be noted on the Land Court Certificate of Title of the owner of the land subject to the Order of Conditions. The recording information on Page 7 of this form shall be submitted to the Conservation Commission listed below.

Stow Conservation Commission
Conservation Commission

Detach on dotted line, have stamped by the Registry of Deeds and submit to the Conservation Commission.

To:

Stow Conservation Commission
Conservation Commission

Please be advised that the Order of Conditions for the Project at:

38 Adams Drive, Stow
Project Location

299-428
DEP File Number

Has been recorded at the Registry of Deeds of:

Middlesex
County

Book

Page

for:

Assabet Water Company, Inc.
Property Owner

and has been noted in the chain of title of the affected property in:

Book

Page

In accordance with the Order of Conditions issued on:

March 1, 2005
Date

If recorded land, the instrument number identifying this transaction is:

Instrument Number

If registered land, the document number identifying this transaction is:

Document Number

Signature of Applicant



COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Central Regional Office, 627 Main Street, Worcester, MA 01608

RECEIVED
AUG 23 2004
B-1

MITT ROMNEY
Governor

KERRY HEALEY
Lieutenant Governor

ELLEN ROY HERZFELDER
Secretary

ROBERT W. GOLLEDGE, Jr.
Commissioner

August 20, 2004

Assabet Water Company
C/O Whitewater
70 Foster Street
Southbridge, MA 01550
Attn: Robert E. Maynard, Jr.

RE: STOW: BRP WS 23 - Construct
Water Treatment Facility < 1 mgd
for Assabet Water Co. Public Water
System, ID #2286001
Transmittal Number: W028493

Dear Mr. Maynard:

The Department of Environmental Protection, Bureau of Resource Protection, Drinking Water Program held a meeting on July 23, 2004 in the Central Regional Office to discuss additional piloting information for the proposed water treatment facility located on Adams Drive in Stow for the Assabet Water Company.

The Assabet Water Company may proceed with the construction of the Adams Drive Treatment Plant in accordance with the Department approval dated August 9, 2002. Upon a satisfactory construction approval inspection and final approval by the Department, the facility may supply water to the distribution system so long as the delivered water meets the treated water requirements of the Surface Water Treatment Rule (SWTR).

If you have any questions or comments, please call me at (508)-767-2710.

Sincerely,

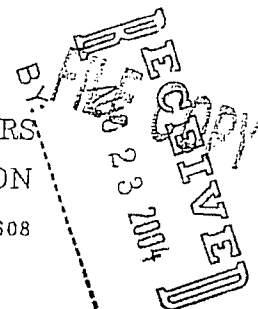
Eugene H. Brunelle
Environmental Engineer V
Drinking Water Program
Bureau of Resource Protection

cc: DEP, Drinking Water Program, Boston
Erik J. Grotton, PE, Grotton Pilot Solutions, 57 Dresser Hill Road, Charlton, MA 01507
Stow BOH

Y:\DWPArchive\CERO\Stow-2286001-SystemModification-2004-08-20



COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Central Regional Office, 627 Main Street, Worcester, MA 01608



JANE M. SWIFT
Governor

BOB DURAND
Secretary

LAUREN A. LISS
Commissioner

Assabet Water Company
C/O Whitewater
70 Foster Street
Southbridge, MA 01550
Attn: Russel E. Tierney

RE: STOW: BRP WS 23 - Construct
Water Treatment Facility < 1 mgd
for Assabet Water Co. Public Water
System, ID #2286001
Transmittal Number: W028493

Dear Mr. Tierney:

The Department of Environmental Protection, Bureau of Resource Protection, Drinking Water Program is in receipt of a permit application and plans and specifications for the construction of a water treatment facility located on Adams Drive in Stow for the Assabet Water Company. The application and report was prepared on your behalf by Groton Pilot Solutions, and was received by the Department on June 7, 2002.

The Department has reviewed the application for conformance with 310 CMR 22.00, the Drinking Water Regulations (the "Regulations") and the Department's "Guidelines and Policies for Public Water Systems", (the "Guidelines").

The Assabet Water Company owns two wells that serve approximately 190 single family homes with an average daily demand of 65,000 gallon per day. One of the two wells, Well #1 (named Well#2 at well), was determined to be under the influence of surface water and is currently not in use. Well #2 (named Well #1 at well) is the primary active well for the system and produces approximately 50-60 gallon per minute (gpm). Both wells have historically had elevated levels of iron and manganese. Therefore, the Assabet Water Company designed a treatment facility that will remove iron and manganese as well as meet surface water treatment standards.

The water treatment facility will be located off of Adams drive where the two existing wells are located. Both wells have 4" polyvinyl chloride (pvc) discharge lines which will enter the treatment facility where the raw water will be chemically treated with Potassium Hydroxide (KOH) for pH adjustment, sodium hypochlorite (NaOCl) for oxidation, and aluminum hydroxide (alum) for coagulation. There will also be a polyphosphate injection point on the bypass line for sequestering, if needed.

The chemically treated water will then enter a single pressure filter for filtration. The filter is manufactured by Pureflow and is model C-250. The filter has a proprietary media which has a ceramic coating. The filter has a maximum capacity of 125 gpm. Only a single filter is proposed because the facility will not be in service 24 per day and in the event that the filter must be re moved from service for an extended period, the facility will have a bypass line from Well #2 which could be used temporarily with chemical treatment.

Filtered water will be treated with NaOCl for disinfection and then enter a 25,000 gallon clearwell for contact time. The concrete clearwell will be serpentine design and located below the treatment facility.

This information is available in alternate format. Call April McCabe, ADA Coordinator at 1-617-556-1171

<http://www.mass.gov/dep> • Phone (508) 792-7650 • Fax (508) 792-7621 • TDD # (508) 767-2788

Printed on Recycled Paper

The clearwell is designed for a minimum 1 log giardia inactivation and 4 log virus inactivation. Two high lift pumps will draw water from the clearwell to send to the distribution system. Each pump will be single stage close coupled horizontal split case centrifugal pump with a 5 HP motor rated at 65 gpm @ 125 TDH. The finished water will have a KOH injection tap for final pH adjustment prior to entering the distribution system.

There will also be a single backwash pump which will draw from the clearwell to backwash the filter. The pump will be the same type as the high lift pumps with a 7.5 HP motor and rated at 250 gpm @ 75 TDH. The daily filter backwash volume is estimated to be approximately 2,000 gallons per day. The filter backwash water will go to a 5,000 gallon sludge holding tank. The tank will have a 1 HP, 7 gpm recycle pump which will recycle a portion of the supernatant to the plant intake. A 2 HP, 20 gpm sludge discharge pump will send the remainder of the backwash from the holding tank to two lagoons with a capacity of 32,000 gallons. The first lagoon will be fully lined and will overflow into a second unlined lagoon.

The chemical treatment equipment will be located in one area of the facility. This area will have full containment for each chemical. The KOH and NaOCl will be delivered and stored in totes (either 250 or 400 gallon). There will be space for two totes at each chemical area (KOH and NaOCl). A transfer pump for each chemical will transfer the chemical to a calibrated 15 gallon day tank. Each of the two day tanks will have a level sensor which will automatically activate the transfer pump. The NaOCl treatment system will have three metering pumps, one pump for raw water chlorination, the second for filtered water disinfection, and a third inline spare pump which was not shown on the drawings but was confirmed by the engineer to be included. The KOH treatment system will also have two metering pumps, one for prefiltration pH adjustment, one for finished water (post clearwell) pH adjustment, and one spare again not shown on the drawing but confirmed by the engineer to be included in the design. The metering pumps will be flow paced. The alum treatment system will consist of a single day tank and a single metering pump (again, the engineer has confirmed that a spare pump will be located on premise for backup). The phosphate system will also consist of a single day tank and metering pump. The phosphate system will only be used during filter bypass. The chemical treatment area will have a safety shower and eyewash.

The treatment facility will have a supervisory control and data acquisition (SCADA) system that will allow for remote monitoring and control of the facility. There will be a desktop computer at the facility as well as remote connection with laptop computer. Monitoring instrumentation will include inline continuous analyzers for chlorine, pH, and turbidity. There will be a laboratory sink to allow for monitoring throughout the treatment process. The system will have numerous alarms, including: chlorine, pH, and turbidity ranges, clearwell level alarms, chemical tank level alarms, flow alarms, pump alarms, filter alarms, and generator alarms. Wherever possible, the programmable logic controllers and computer will not be needed to trigger the alarms.

The plans also show a third well to be incorporated into the design of the facility. The Assabet Water Company has an existing drilled bedrock well which when initially tested, did not show adequate yield for development. The Assabet Water Company will attempt to modify the well and retest it again to determine if an adequate yield can be sustained. If so, the well will be tied into the treatment facility.

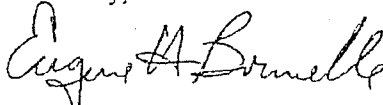
The exterior of the building will have a loading dock for deliveries of chemical totes. There will be a standby generator to provide continuous electrical service to the facility. The generator will be a LP gas driven, 60 KW generator with an above grade 500 pound LP gas storage tank.

Upon review of all submitted data, the Department hereby approves the construction of the treatment facility in accordance with the Regulations and Guidelines with the following conditions and recommendations:

- All chemical feed lines must have sufficient siphon and backflow control. Also, as a failsafe, a flow switch is recommended to be installed and directly connected to each metering pump (not through the SCADA system).
- Once construction is complete, an Operation and Maintenance Manual will be required to be submitted to the Department. Also, a set of as-built drawing must be submitted to the Department. A final inspection should be conducted prior to placing the facility in service.
- Upon completion, all water piping must be disinfected in accordance with ANSI/AWWA C652 (latest edition). Bacterial and pH samples must be taken from the finished water sample taps and the results made available to the Department. All bacterial and chemical samples are to be analyzed by a Massachusetts Certified laboratory. Additionally, the distribution system improvements must be pressure tested for water tightness and leakage tested in accordance with ANSI/AWWA C600 (latest edition), and the certified results made available to the Department upon request.
- Attached are the required monthly chemical treatment monitoring forms for compliance with the Drinking Water Regulations. These forms must be completed each month and submitted to the Department.
- It is recommended to have full disclosure signs posted on or near the door of the facility for each chemical used for operator and Town personnel safety.

This construction approval does not relieve the owner of this water supply from complying with all other applicable local, State and Federal requirements, licenses and permits. If you have any questions or comments, please call Randy Swigor at (508)767-2720.

Sincerely,



Eugene Brunelle
Program/Watershed Chief
Bureau of Resource Protection

DATE: 8/9/2002

enc. monthly reporting forms

cc: Dave Terry, Director, Drinking Water Program, Boston
Dana Samuelson, ADM, CERO
Erik J. Grotton, PE, Grotton Pilot Solutions, 57 Dresser Hill Road, Charlton, MA 01507
Stow BOH

STATE OF COLORADO

Bill Owens, Governor
Douglas H. Benevento, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S.
Denver, Colorado 80246-1530
Phone (303) 692-2000
TDD Line (303) 691-7700
Located in Glendale, Colorado

Laboratory Services Division
8100 Lowry Blvd.
Denver, Colorado 80230-6928
(303) 692-3090

<http://www.cdphe.state.co.us>



Colorado Department
of Public Health
and Environment

September 10, 2003

Mr. Erik J. Grotton, P.E.
Grotton Pilot Solutions
57 Dresser Hill Road
Charlton, MA 01507

Subject: Approval of Pureflow Filtration System

Dear Mr. Grotton,

The Water Quality Control Division of the Colorado Department of Public Health & Environment has received your communication requesting our opinion of the Pureflow Filtration System for surface water treatment. There are no Pureflow Filtration Systems in Colorado, however, a subsequent communication from you states that Pureflow is also known as Filtronics, Inc. There is at least one Filtronics Electromedia Filtration System approved for surface water treatment in Colorado.

I have reviewed the available information regarding the installation of Filtronics Electromedia Filtration System. The system was pilot tested for both metals and pathogen removal efficacy. To my knowledge the systems are performing satisfactorily.

The system I am referring to is the Town of Black Hawk. You may contact them regarding operational issues at (303) 567-2314.

Sincerely,

Glenn A. Bodnar, P.E.
Drinking Water & Wastewater Technical Services Unit
Water Quality Control Division
Glenn.Bodnar@state.co.us

Santa Barbara County
PUBLIC Health
DEPARTMENT

Environmental Health Services

225 Camino Del Remedio ♦ Santa Barbara, CA 93110
805/681-4900 ♦ FAX 805/681-4901

Roger E. Heroux, MPA Director
Peggy Langle Deputy Director
Michele Mickiewicz, MPH Deputy Director
Jane Overbaugh Deputy Director
Elliot Schulman, MD, MPH Health Officer/Medical Director

August 19, 2003

Mr. Erik J. Grotton, P.E.
Grotton Pilot Solutions
57 Dresser Hill Road
Charlton, MA 01507

Re: Approval of Pureflow Filtration System

Dear Mr. Grotton,

I have reviewed the available information regarding the installation of Pureflow's filtration system installed in Santa Barbara and San Luis Obispo Counties, CA. We currently have 2 such systems installed and can confirm that these systems are currently permitted for treatment of a Surface Water and groundwater under direct influence of surface water. Though not under the jurisdiction of the counties, these systems are approved by the State Department of Health Services, Drinking Water Branch. To my knowledge the systems are performing satisfactorily. If you have any questions please contact me at 805-681-4917 or Kurt Souza, Department of Health Services at 805-566-1326.

Sincerely,

Norman Fujimoto

Norman Fujimoto
Senior Environmental Health Specialist